REMARKS

Claims 1-7, 9-10 and 12-17 are pending in the present application. By this reply, claims 8 and 11 are cancelled and new claims 15-17 are added. Claim 1 is independent claim.

The abstract, specification and claims have been amended for clarification purposes. No new matter is added. Support for the claims can be found throughout the specification, including the original specification, and the drawings.

Drawing Objection

The drawings have been objected to because Figs. 2 and 5 allegedly have certain incorrect reference numerals. To overcome this objection, Figs. 2 and 5 and the specification have been amended to clarify the invention. These changes to the drawings, as set forth in the attached Replacement Sheets of drawings, do not add any new matter to the disclosure. Accordingly, the objection to the drawing must be withdrawn.

35 U.S.C. § 102 Rejection

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Giammaressi (US 2003/0061619 A1). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

A multimedia service system according to Applicant's embodied invention comprises clients, a server and a virtual server. The clients request information (e.g. multimedia data) to the virtual server and receive the requested information corresponding to the request from the virtual server via a first network. The server provides the information

requested by the clients to the virtual server via a second network. The virtual server receives the provided information from the server via the second network, stores the received information in a main memory, controls traffic of the first network by using a protocol controlling the traffic of the first network, transmits the stored information to the clients via the first network on a real time basis, and at the same time, stores the information to be transmitted to the clients in an auxiliary memory. Moreover, the virtual server is connected with the clients via the first network to receive the requests for information from the clients and transmit the requests for information to the server, and is connected with the server via the second network to receive the information provided from the server.

Furthermore, Applicant's virtual server comprises a main memory for storing information received from the server and outputting the information to be transmitted to a first requesting client; an auxiliary memory for storing the information outputted from the main memory and outputting the same information to a second or later requesting client; and a controller for controlling the main memory and the auxiliary memory, and transmitting the information between the main memory and the auxiliary memory. That is, information previously requested by one client and supplied to that client by the main memory is also stored in the auxiliary memory, and the virtual server transmits the stored same information from the auxiliary memory to another client when this another client requests the same information. This reduces a load of the server.

In contrast, Giammaressi is directed to a service rate change method and apparatus for adjusting the bandwidth within a bandwidth constrained interactive information distribution system 100. The system 100 contains service provider equipment 102 including an information server 108 and a video session manager 122. The information server 108 interacts with at least one of data storage devices 114-1 through 114-M that generally stores the subscriber information to be recalled and downloaded to the subscriber. Giammaressi determines an appropriate bandwidth level for each requesting subscriber and sends the requested information at the determined bandwidth level.

Thus, as acknowledged by the Examiner in the Office Action, Giammaressi does not teach or suggest Applicant's virtual server including the first memory and the auxiliary memory as set forth in claim 1. For instance, Giammaressi lacks Applicant's feature of transmitting the information stored in the main memory of the virtual server and supplied to a first requesting client and at the same time storing the same information in an auxiliary memory so that the information from the auxiliary memory can be transmitted to a second or subsequent requesting client. In addition, Giammaressi does not anticipate the feature of controlling, by the virtual server, traffic of the first network by a certain protocol of the first network and transmitting the stored information to the clients via the first network on a real time basis.

Therefore, Giammaressi fails to reach or suggest, *inter alia*:

> the virtual server for... storing the received information in a main memory, controlling traffic of the first network by using a protocol controlling the traffic of the first network, transmitting the stored information to the clients

via the first network on a real time basis, and at the same time, storing the information to be transmitted to the clients in an auxiliary memory, ... wherein the virtual server comprises:

the main memory for storing the information received from the server and outputting the information to be transmitted to a first requesting client;

the auxiliary memory for storing the information outputted from the main memory to the fist requesting client and outputting the information to be transmitted to a second or later requesting client, ...

wherein when information previously requested by a first one of the clients is stored in the auxiliary memory, the virtual server transmits the stored information from the auxiliary memory to a second or later one of the clients when the second or later client requests the same information, in order to reduce a load of the server

as recited in independent claim 1.

Accordingly, claim 1 is patentable over the applied reference and the rejection should be withdrawn.

35 U.S.C. § 103 Rejections

Claims 2-14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Giammaressi (US 2003/0061619) alone or taken in combination with Ito et al. (US 6,014,693), Nagashima et al. (US 6,434,746), Verbiest et al. (US 5,550,577) or Aharoni et al. (US 6,014,694). These rejections, insofar as they pertain to the presently pending claims, are respectfully requested.

As discussed above, Giammaressi fails to teach or suggest at least the above-noted features recited in independent claim 1 from which claims 2-7, 9-10 and 12-14 depend. Furthermore, none of the secondary references applied by the Examiner overcome these deficiencies of

Giammaressi since these references do not teach or suggest the specifics of the virtual server including the main and auxiliary memories as set forth in independent claim 1. Therefore, even if the references are combinable, assuming *arguendo*, the combination of references as applied by the Examiner would still fail to teach or suggest the invention of independent claim 1 and its dependent claims (due to their dependency). Accordingly, the claims are allowable and the rejections should be withdrawn.

New Claims

Claims 15-17 further define the invention as set forth in independent claim 1 and are thus allowable at least for the same reasons that claim 1 is allowable as discussed above. In the alternative, these claims are allowable since they further require additional features that are neither taught nor suggested by the prior art of record. Accordingly, allowance of the new claims is respectfully requested.

CONCLUSION

For the foregoing reasons and in view of the above clarifying amendments, Applicant respectfully requests the Examiner to reconsider and withdraw all of the objections and rejections of record, and earnestly solicits an early issuance of a Notice of Allowance.

Should there be any outstanding matters which need to be resolved in the present application, the Examiner is respectfully

requested to contact Esther H. Chong (Registration No. 40,953) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Applicant(s) respectfully petitions under the provisions of 37 C.F.R. § 1.136(a) and 1.17 for a two-month extension of time in which to respond to the Examiner's Office Action. The Extension of Time Fee in the amount of $450.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By *Esther H. Chong* #40,953

for Joseph A. Kolasch, #22,463

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

JAK/EHC:sld

Attachments: Abstract of the Disclosure
                 Figures 2 and 5

IN THE DRAWINGS:

Please replace original Figs. 2 and 5 with the attached two (2) replacement sheets depicting corrected new Figs. 2 and 5.

Particularly, we have corrected block reference number "121" of CORE NETWORK to --120-- and "AWX MEMORY" (130-4) to --AUX MEMORY-- in Figure 2, and corrected "M7, M6, M5" input to auxiliary memory 130-4 to --M7, M6, M5, M4-- in Figure 5.